

# Design Robotics

Developing new ways to use robots  
for design-led manufacturing

UAP

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QUT

RMIT  
UNIVERSITY

QUT Design Lab

AUSTRALIAN CENTRE FOR  
ROBOTIC  
VISION

## Development of an automated robotic polishing system for one-of-a-kind production

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# Robots in Manufacturing

Mass

Custom  
(One-of-a-kind)

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Image credits  
Tesla Factory, [https://en.wikipedia.org/wiki/Tesla\\_Factory](https://en.wikipedia.org/wiki/Tesla_Factory)  
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# Polishing Operations

A finishing operation

Bottleneck

Highly skilled operators

Hand-eye coordination

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# Robotic Polishing Operations

How can we transfer hand-eye coordination skill to a robot?

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Vision

Hearing

Smell

Taste

Touch

Vision

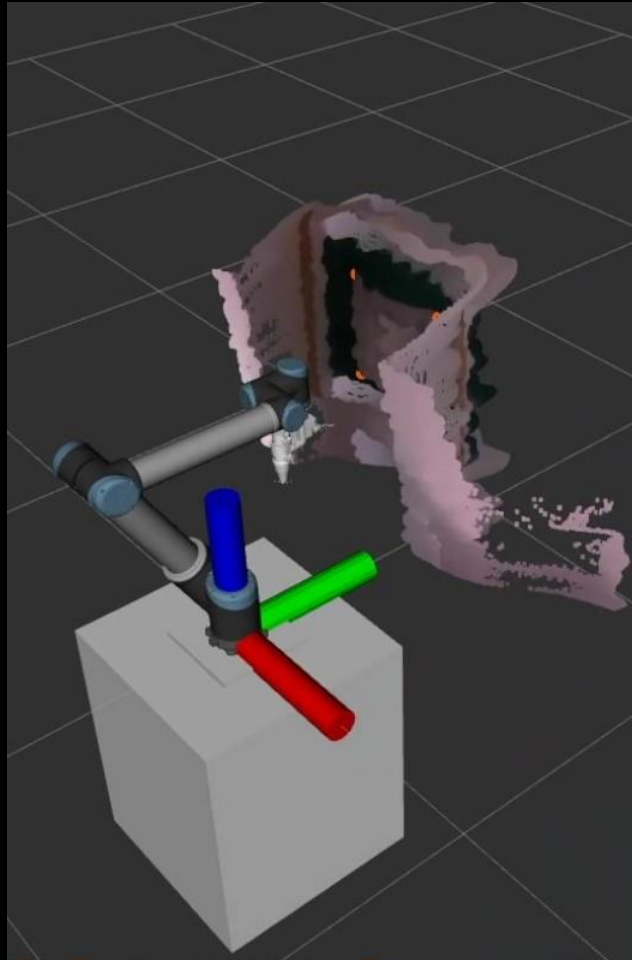
Touch



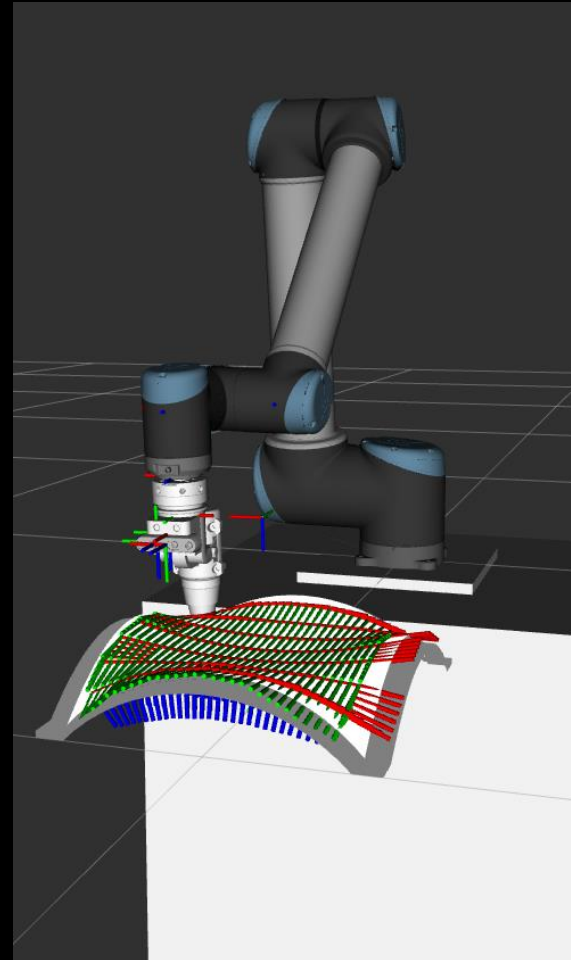
Image credits  
RealSense Camera, Intel  
Robotiq Force Torque Sensor, Universal Robots

# Our Approach

See



Plan



Execute



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## Thanks!

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